

SWARTHMORE COLLEGE,

1883-84.

SWARTHMORE COLLEGE

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SWARTHMORE COLLEGE.

FIFTEENTH

ANNUAL CATALOGUE

OF

SWARTHMORE COLLEGE,

SWARTHMORE, PA.

1883-84.

PRESS OF
FRIENDS' BOOK ASSOCIATION,
1020 Arch Street, Philadelphia.

CALENDAR.

1883-84.

1883.	Ninth month, 11th,	Third-day,	Meeting of the Board of Managers.
"	Ninth month, 11th,	Third-day,	Examinations for admission begin.
"	Ninth month, 13th,	Fifth-day,	Examinations for admission completed, and old students return.
"	Ninth month, 14th,	Sixth-day,	Regular Exercises begin.
"	Twelfth month, 3rd,	Second-day,	Meeting of the Board of Managers.
"	Twelfth month, 4th,	Third-day,	ANNUAL MEETING OF STOCKHOLDERS.
"	Twelfth month, 4th,	Third-day,	Meeting of the Board of Managers.
"	Twelfth month, 21st,	Sixth-day,	Holidays begin.
1884.	First month, 2nd,	Fourth-day,	Students return for roll-call at 8 P. M.
"	First month, 3rd,	Fifth-day,	Regular Exercises begin.
"	Third month, 4th,	Third-day,	Meeting of the Board of Managers.
"	Fifth month, 10th,	Seventh-day,	Junior Exhibition.
"	Fifth month, 12th,	Second-day,	Senior Examinations begin.
"	Fifth month, 19th,	Second-day,	Senior Examinations completed, the results announced, and parts for Commencement assigned.
"	Sixth month, 16th,	Second-day,	Meeting of the Board of Managers.
"	Sixth month, 16th,	Second-day,	Annual Business Meeting of the Alumni Association.
"	Sixth month, 17th,	Third-day,	COMMENCEMENT.
"	Ninth month, 9th,	Third-day,	Meeting of the Board of Managers.
"	Ninth month, 9th,	Third-day,	Examinations for admission begin.
"	Ninth month, 11th,	Fifth-day,	Examinations for admission completed, and old students return.
"	Ninth month, 12th,	Sixth-day,	Regular Exercises begin.
"	Twelfth month, 1st,	Second-day,	Meeting of the Board of Managers.
"	Twelfth month, 2nd,	Third-day,	ANNUAL MEETING OF STOCKHOLDERS.
"	Twelfth month, 2nd,	Third-day,	Meeting of the Board of Managers.
"	Twelfth month, 23rd,	Third-day, P. M.	Holidays begin.
1885.	First month, 4th,	Second-day,	Students return for roll-call at 8 P. M.
"	First month, 5th,	Third-day,	Regular Exercises begin.

I. CORPORATION.

Officers.

CLERKS.

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FANNIE A. WILLETS,

*Fortieth St. and Lancaster Ave., Phila.
Trenton, N. J.*

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ROBERT BIDDLE,

511 Commerce St., Philadelphia.

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CLEMENT M. BIDDLE,
ABIGAIL M. WOODNUTT,
ANNA M. HUNT,
SUSAN W. LIPPINCOTT,
SARAH H. MERRITT,
HERMAN HOOPES,

*Trenton, N. J.
Friend's School, Lombard St., Balt., Md.
531 Commerce Street, Philadelphia.
1528 Arch Street, Philadelphia.
1802 Wallace St., Philadelphia.
Cinnaminson, N. J.
184 Lefferts Place, Brooklyn, L. I.
609 Chestnut Street, Philadelphia.*

Term expires Twelfth Month, 1885.

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EMMA McILVAIN,	Fifty-ninth St. and Elmwood Ave., Phila.

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MARY WILLETS,	Trenton, N. J.
ANNA M. FERRIS,	Wilmington, Del.
MARY T. LONGSTRETH,	Sharon Hill, Del. Co., Pa.
LYDIA H. HALL,	West Chester, Pa.

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M. FISHER LONGSTRETH,

ANNA M. FERRIS,

ANNA M. HUNT,

ELI M. LAMB,

EMMOR ROBERTS,

LYDIA H. HALL,

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ANNA M. HUNT,

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HERMAN HOOPES,	SUSAN W. LIPPINCOTT,
CLEMENT M. BIDDLE,	EMMA McILVAIN,

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Prof. EUGÈNE PAULIN.

Prof. ARTHUR BEARDSLEY.

Prof. WILLIAM HYDE APPLETON.

Prof. SUSAN J. CUNNINGHAM.

Prof. SAMUEL S. GREEN.

Prof. JOSEPH W. TEETS.

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Asst. Prof. ELIZABETH C. MILLER.

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CHARLES C. EAMES, C. E.,
Assistant Professor of German.

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ELLEN M. GRISCOM,
Instructor in Free-hand Drawing.

AMELIA P. BUTLER,
Instructor in Theory and Practice of Teaching.

OLIVIA RODHAM,
Assistant Librarian, and Instructor in Botany.

III. GENERAL INFORMATION.

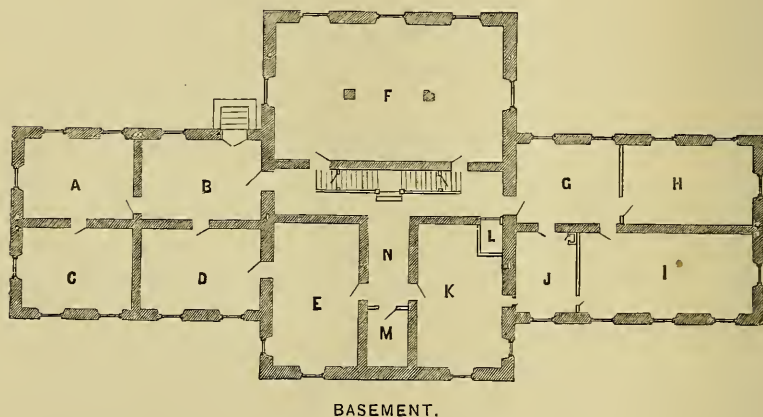
Swarthmore College was founded by members of the religious Society of Friends, in order to provide the children of the Society and others with opportunities for higher education under guarded care. With this object in view, a property of 240 acres was secured in a rural district ten miles from Philadelphia, on the Central Division of the P. W. and B. Railroad. It is accessible by trains, from the Broad St. station, sixteen times daily. About half the land is used for farming purposes, providing milk and vegetables for the College ; the remainder is devoted to lawn and pleasure grounds. Crum Creek, which forms the western boundary of the property, affords facilities for boating, bathing and skating. The portion of the grounds bordering the stream is of great picturesque beauty. The building site is high, thus securing perfect drainage and pure air, and commanding a fine view of the surrounding country for many miles.

The Principal College Building is a massive stone structure 348 feet long. It consists of a centre building four stories high, containing public rooms such as Lecture Rooms, Museum, Library, Reading Room, Parlors, Dining Hall, etc. Fire proof compartments separate this building from the two wings. These latter are each three stories high. The ground floors are devoted to lecture and recitation rooms; the remaining floors in the East Wing contain the dormitories of the young women, and in the West Wing, those of the young men. Though the dormitories are thus widely separated, the sexes mingle freely under proper care in the class rooms, parlors, and dining hall. The instructors reside in the same building with the students, and the relations between them are such, that there is comparative freedom from the dangers and temptations ordinarily incident to college life. The buildings are heated throughout by steam, lighted by gas, and thoroughly ventilated.

The Science Hall is constructed of stone, in the most durable manner, and was planned with special reference to the work of students in science. The centre building has a frontage of 44 feet, and a depth of 64 feet; the wings are each 43 x 33 feet.

A large amount of fine apparatus has been secured, to which continual additions will be made by purchase and by construction in the Mechanical Laboratory.

The following floor plans will explain the arrangements of the several floors, and the uses to which they are applied :—



- A.* Blacksmith Shop, containing two complete sets of blacksmith's tools; forges, anvils, vises, &c.
- B.* Boiler Room and room for grinding and polishing, containing a vertical tubular boiler, and grindstone and emery wheels.
- C.* Brass Foundry, with its crucible furnace, oven for baking cores, founder's benches, &c.
- D. & E.* Communicating rooms devoted to wood working and pattern making; containing lathes, benches, &c.
- F.* One of the two rooms devoted to the Physical Laboratory, and intended for such apparatus as requires very solid foundations.
- G.* Unpacking room of the Chemical Department.
- H.* Store-room.

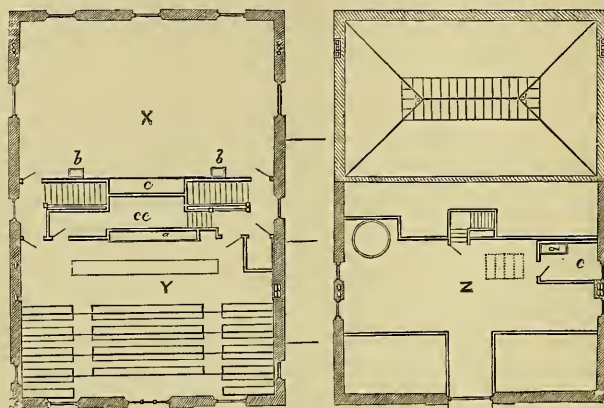
- I.* Laboratory for beginners in Chemistry.
- J.* Room for chemical stores and supplies, communicating with *I* and *K* by windows, and with the general laboratory above by a dumb-waiter.
- K.* Metallurgical Laboratory, which contains also the gasometers for supplying the laboratories and lecture room with Oxygen and Hydrogen gases.
- L.* Elevator running from basement to second floor.
- M.* Battery Room, from which wires lead to other rooms.
- N.* Hall and stairway.
- O.* Engineering, Lecture and Recitation Room.
- P.* Mechanical Laboratory and Machine Shop, containing all the tools and appliances generally found in first-class machine shops. Power is obtained by an engine driven by steam either from the main college boilers or from the shop boiler at pleasure.
- Q.* Physical Laboratory.
- R.* Wardrobe. *S.* Engineering Field Instruments, &c.
- T.* Quantitative Laboratory, with all necessary appliances.
- U.* Balance Room and Chemical Library.



FIRST FLOOR.

- V.* Private Laboratory of the Professor of Chemistry.
- W.* General or Qualitative Laboratory. *a* Hoods, some containing sinks, others not. *b* Sinks.

- X. Drawing Room, lighted by a skylight and by large North windows.
- Y. Lecture Room, with large hood and lecture table, supplied with water, gas, electricity, Oxygen and Hydrogen.
- Z. Photographic Room, with North skylight and dark room. *a* Hood. *b* Sinks. *c* Closets. *cc* Apparatus Room.



SECOND FLOOR AND ATTIC

Other Buildings are a Meeting House, the President's house, the West House (birth-place of Benjamin West), now used as a Professor's residence, the Farmer's house, and commodious farm buildings, the Laundry and Bakery, and the Boiler house, containing the sectional boilers for heating and cooking purposes. All these buildings are constructed of stone.

The General Library contains upwards of 5000 volumes of works generally selected by the Professors and Instructors at the heads of the various departments of study, and is, in consequence, a valuable working collection.

Friends' Historical Library of Swarthmore, founded by Anson Lapham, contains a small but increasing collection of Friends' books, photographs of representative Friends, and manuscripts relating to the

Society and its history, and is at all times accessible to teachers, students and members of the household.

This collection is stored in a fire proof apartment, and it is hoped that Friends and others will deem it a secure place to deposit books and other material in their possession which may be of interest in connection with the history of the Society. Such contributions should be sent to the Librarian, *Arthur Beardsley, Swarthmore, Pa.*

The Reading Room, supplied with the leading Literary and Scientific journals, and the prominent newspapers of the principal cities, is open to students at all times except during the regular hours for study and recitations.

The Museum occupies the entire fourth floor of the center building. It embraces collections in Geology, Mineralogy, Zoology and Botany. It is a working collection used constantly in the classes. Contributions of material or money for the museum should be sent to the Curator, *Dr. Joseph Leidy, Swarthmore, Pa.*

Literary Societies are maintained by the students. There are two for young men, and one for young women. These hold regular meetings for the reading of Essays, etc., and for practice in debates. Their Libraries, under their own management, contain over eighteen hundred volumes, and are accessible to all of the college students.

A Scientific Society is also maintained by the students interested in Science.

The Gymnasium, under the care of the Students' Athletic Association, is open at certain hours each day for the exercises of the boys and young men; and a large room in the main building is set apart for the exercises of the girls and young women. Students are also encouraged to take regular daily exercise in the open air, for which the extensive grounds connected with the college afford ample facilities.

Religious Exercises.—While care is taken to inculcate the doctrine that religion is a matter of practical daily life, and is not confined to the observance of set forms or the promulgation of relig-

ious tenets, the regular assembling for religious purposes is carefully observed. On First-day morning a religious meeting is held, attended by students, teachers, and members of the household, and occasionally by visiting Friends. The meeting is preceded by First-day school exercises, consisting of the recitation of passages of Scripture prepared by members of the different classes, and the reading of a portion of Scripture at the close. The daily exercises are opened by a general meeting for reading selected portions of Scripture, or other suitable books, and imparting such moral lessons as circumstances seem to require, followed by a period of silence before entering upon the duties of the day.

Leave of Absence cannot be granted without a written request from parents or guardians, which request should, in all cases, be accompanied by reasons satisfactory to the Faculty.

Students may be visited, on week-days, by parents or guardians, or by near relatives, or others approved by parents or guardians ; but general visiting is discouraged. *Students must not be interrupted in their studies or recitations at any time ; nor must they be visited on the First-day of the week.*

All persons who are interested in education, and who are desirous of examining the methods of instruction and discipline at Swarthmore, will be welcomed at any time, and should, when convenient, communicate with the President upon the subject in advance.

Outfit.—Although no form of dress is prescribed for either sex, such simple attire as is appropriate to school life is earnestly recommended. Ear-rings, bracelets, necklaces, and elaborately trimmed dresses are prohibited.

Students should be supplied with six towels, six napkins, two clothes-bags, a wrapper, slippers, umbrella, and the requisite toilet articles. Every article must be marked with the full name of the owner.

The Use of Tobacco *being strictly prohibited, those addicted to its use, unless prepared to renounce it entirely, should not apply for admission.*

Commencement and Vacations.—The college year begins on the second Third-day of Ninth Month, and closes with Commencement day, which occurs on the third Third-day of Sixth Month.

Students are not admitted for a period less than the current college year, but when vacancies exist, may enter at any time during the year.

Besides the summer vacation there will be a recess of one week at the close of the Twelfth Month.

Students are permitted to remain at the college, under care, during the recess, but not during the summer vacation.

Preparatory Schools.—Besides the College proper the Institution embraces a preparatory school. The pupils of this school are under the same general management as the college students. They receive instruction from teachers employed especially for this purpose, and also from professors and instructors of the college.

This school receives those pupils who are not sufficiently advanced in their studies to enter the college. The point of advancement requisite for admission to the college will be found explained on pages 19 and 20 of this catalogue.

Parents are requested to examine the requirements for admission and, whenever it is practicable, to have their sons and daughters prepared to enter the Freshman Class.

On page 22 will be found a list of schools which are authorized to prepare students for the college. Candidates for the Freshman Class recommended from these schools will be admitted without examination.

The Household.—In the organization of this Institution, unusual care has been extended to the personal comfort and the social interests of the students. This department is in charge of the Matron with able assistants. She has also special oversight of the conduct and health of the young women and girls, and parents are desired to communicate freely with her in regard to the welfare of their daughters.

EXPENSES.

In the College, the cost of Board and Tuition is \$450 per year, of which \$250 is payable in advance, and \$200 on the first of First month.

In the Preparatory School the charges are as follows:

Class C,	\$300 00 per annum.
Classes B, A, and College Preparatory,	350 00 “

of which \$200 is payable in advance, and the rest on the first of First month.


A deduction of \$100 per annum is made from the above charges to all students who are children of members of the Religious Society of Friends.

For Day Scholars the price is \$200 per year in the College, and \$150 per year in the Preparatory School; of which \$100 is payable in advance, and the remainder on the first of First month. A deduction of \$50 per annum is made from these charges to all students who are children of members of the Religious Society of Friends. The day scholars dine with the resident students.

Books are Furnished for the use of all students without expense, but they buy their own stationery and drawing implements. Students in Practical Chemistry pay for the chemicals which they use in the Laboratory. No additional charge is made in case of sickness unless a physician is employed.

The price being made as low as experience shows to be compatible with prudence, while many of our expenses are annual in their character, and teachers and other officers at fixed yearly salaries must be engaged in proportion to the number of students entered, we cannot, in case of withdrawal, return the full proportionate amount paid, without loss. When the connection of a student with the Institution shall

terminate before the end of the period for which payment has been made, by sickness, or any other cause approved by the Faculty, the student may have the privilege of sending an approved substitute, for the unexpired term, or may apply, in writing, to the Treasurer, and a return will be made of two-thirds of the amount pre-paid, from the date of said application or written notice that the place is vacated.

 The above prices may be depended upon as covering all necessary expenses, as

THERE ARE NO EXTRA CHARGES.

PAYMENTS.

Payments are to be made by check or draft to the order of

ROBERT BIDDLE, TREASURER,

No. 511 COMMERCE STREET, PHILADELPHIA.

For further information concerning the Institution, Courses of Study, &c., address,

EDWARD H. MAGILL, PRESIDENT,

SWARTHMORE,

PENNA.

IV. THE COLLEGE.

INTRODUCTORY.

The studies required for a degree extend over four years. The requirements for admission are intended to be such as Friends' Schools generally can meet. Owing to the enforcement of regular hours for study and the absence of all opportunity for dissipation, the amount accomplished in four years is large, and for graduation the requirements will be found to compare favorably with those at other Colleges. The courses are believed to afford a sufficient preparation in Science and general culture, for the ordinary avocations of life, for the study of any of the learned professions, or for the pursuit of special studies in the higher Universities, at home or abroad. They are so arranged that by making a suitable selection, the student can pursue those subjects which are most congenial to his tastes, or which will be most serviceable to him in his future career. To facilitate this choice of studies, each class is divided into four sections as follows :

1. The Classical Section, in which prominence is given to the study of the ancient languages. Students completing the courses of this section receive the degree of *Bachelor of Arts*.

2. The Scientific Section, in which the study of the sciences is made most prominent. Students completing the required courses of this section receive the degree of *Bachelor of Science*.

There are for the students in this section, special extensions of the courses in the direction of Chemistry and Engineering, so that the student may make his work largely technical. The degree of *Civil Engineer* is given as a second degree to Engineering students three years after graduation. (See page 35.)

3. The Literary Section, in which the leading studies are the

modern languages, including English. Students completing the courses of this section receive the degree of *Bachelor of Letters*.

4. **Special Students**, and others, pursuing irregular courses. Such students who shall complete all the courses of study in any particular subject, may receive a certificate to that effect upon the recommendation of the Professor in charge of the department specified, but they can receive no degree. The pursuit of the prescribed courses, whether students are candidates for degrees or not, is especially recommended.

To secure places, application for admission should be made as early as possible by letter to the President.

All applicants must submit satisfactory testimonials of good moral character from their last teachers, and students coming from another college must present certificates of their honorable dismissal.

Students are not considered as regular members of the College until, after a residence of at least four months, they have been admitted to matriculation. Before this they are students on probation.

REQUIREMENTS FOR ADMISSION.

EXAMINATIONS for admission will be held at Swarthmore on Third, Fourth, and Fifth-days, the 9th, 10th and 11th of Ninth month, 1884. Candidates must present themselves at the College at three o'clock P. M., on Third-day, the 9th of Ninth month.

Students in Friends' Schools may take their examination for admission in the preceding Sixth month ; the Superintendent of Philadelphia Yearly Meeting Schools, when requested, visiting for that purpose the schools under his supervision.

Candidates for admission to the Freshman Class will be examined in the following subjects :

1. MATHEMATICS—*Arithmetic*.—Fundamental Rules, Fractions, (common and decimal) Denominate Numbers, Percentage and its applications, Proportion.

Algebra.—Through Equations of the second degree of one unknown quantity.

Geometry.—The first four books of Davies's Legendre's Geometry ; or an equivalent amount from another author.

2. ENGLISH.—The candidate will be asked to write a few pages upon some assigned subject, or from dictation. It will be examined with reference to Grammar, Spelling, Paragraphing, Punctuation and the use of Capitals. An examination will also be given in the principles of the grammar.

3. HISTORY.—A general outline of the History of the United States and of England, with the principal dates ; the principal facts and dates in Grecian History. In this connection there will be an examination in Ancient Geography, particularly that of Italy, Greece and Asia Minor.

4. GEOGRAPHY.—The general facts of Physical Geography. Descriptive and Political Geography, especially of the United States and Europe.

In addition to the above, the Candidate will be examined in *one* of the following subjects as he may elect :

5. LATIN.—Harkness's Composition, first thirty lessons ; Caesar's Gallic War, first two Books ; Virgil's Aeneid, first four Books.

6. FRENCH.—The Candidate should be familiar with the Grammar ; especially with the formation and use of the Verbs. He should be able to read easy French at sight, and to translate simple English sentences into French. For this preparation, which should occupy two years, Magill's Grammar and Reader, and Magill's Prose and Poetry are recommended ; or French Classics may be read.

GERMAN.—The preparation in German should occupy two years ; the first year being devoted to the Grammar and Reader and to writing Exercises ; and the second year to reading German Classics with a review of the Grammar. The Candidate should be able to read easy German at sight, and to translate simple English sentences into correct German.

Candidates who are prepared in both French and German, may offer half the above amount equivalent to one year's study of each.

Candidates for the *Classical Section* must pass the above examination in *Latin*.

Greek is not required for admission, but students who have been prepared in Greek can go on in that language with students in the higher college classes.

Candidates for the *Scientific Section* who have had no opportunity to prepare in Latin, French or German, will not be rejected on account of such deficiency if they are otherwise qualified for admission. An opportunity will be offered to make up the deficiency in French or German after admission.

Preparation in Free-Hand Drawing is recommended for all students of Science.

The attention of Committees and Principals of Schools preparing students for the College, is called to the Course of Study in the Swarthmore Preparatory School, (see Section V of this Catalogue) which is deemed a suitable preparation.

For Advanced Standing.—Candidates will be further examined in the studies already pursued by the class for which they present themselves; but in the case of such students, real equivalents will be accepted for any of the studies gone over by the class.

ADMISSION WITHOUT EXAMINATION.

The privilege of admission without examination is extended as follows :

I. To those candidates for the Freshman Class who shall present certificates of their qualification from the Principals of the following schools :

Friends' Central School,	Philadelphia, Pa.
Friends' Seminary,	New York, N. Y.
Friends' High School,	Baltimore, Md.
Woodstown Academy,	Woodstown, N. J.
Friends' School,	Wilmington, Del.
Friends' High School,	West Chester, Pa.
Friends' High School,	Moorestown, N. J.
Buckingham Friends' School,	Lahaska, Pa.*

II. To a limited number of teachers and other persons of fair education and over 21 years of age, who may wish to improve themselves in particular studies. These will be received as *special students* and allowed to elect, in any of the regular classes, such work as they can pursue to advantage.

* Other Friends' Schools may on application be added to the above list, if the Faculty and Instruction Committee shall be satisfied that they are taught by competent teachers, and are furnishing the requisite preparation for admission.

COURSES OF STUDY.

I.—MATHEMATICS.

1. Olney's Algebra through Quadratic Equations, Davies's Legendre's Geometry, Books V and VI. Chauvenet's Plane Trigonometry. Four times a week. Required of all students in the Freshman Class.

2. Davies's Legendre's Geometry, Books VII-IX, Olney's Higher Algebra. Twice a week. Required of all students in the Sophomore Class.

3. Todhunter's Conic Sections. Twice a week. Elective for all students in the Sophomore Class.

4. Williamson's Differential and Integral Calculus. Chauvenet's Spherical Trigonometry. Four times a week. Elective for all students who have completed Courses 1, 2 and 3.

5. Chauvenet's Spherical and Practical Astronomy. Elective for all students who have completed Courses 1, 2, 3 and 4.

II.—NATURAL HISTORY.

The instruction in this department consists of lectures and recitations, as follows:

1. **Comparative Anatomy and Physiology.**—A course of lectures extending through two years, once a week. Required of all students in the Freshman Class and elective for those in the Sophomore Class.

2. **Botany** —Lectures, recitations, and analysis of plants. Twice a week. Required of all students in the Sophomore Class.

3. **Mineralogy.**—Lectures. Once a week, last half year. Required of all students in the Junior Class.

The determination of minerals with the blowpipe, is elective for students who have completed Course 1 in chemistry.

4. Geology.—Lectures and Recitations once a week throughout the year. Required of all sections of the Senior Class. Dana's Geology is used as a text book.

The Museum of the College consists of a cabinet of choice crystallized minerals, and characteristic rocks and ores, and a collection of preserved specimens of animals of all classes, together with magnified and colored drawings selected from the best authorities, fully illustrating the course of lectures on Zoology, Comparative Anatomy, and Physiology.

III.—PHYSICS.

The following are the courses in Physics :

1. A course of recitations on the mechanics of solids and fluids. Twice a week. Elective for all students who are taking, or who have completed Course 2 in Mathematics.

2. Lectures on Sound, Heat, Light, Electricity and Magnetism ; Ganot's Physics. Twice a week. Required of all students in the Sophomore Class.

3. A Course of Laboratory work in Mechanical and Physical Measurements. Twice a week with one period of lectures and recitation ; counting as two periods. Elective for students who have completed Course 2.

IV.—CHEMISTRY.

The courses in Chemistry are as follows :

1. Lectures on Inorganic Chemistry and some of the more important of the Carbon compounds. Twice a week. Elective for all who wish to begin the study of Chemistry.

2. Laboratory Practice in general Chemistry. Four periods counting as two. This course is supplementary to Course 1, and is elective for those who are pursuing that course or who have completed it.

3. Laboratory Practice. Six Periods counting as three, with one of Lectures and Recitations. During the first half year, Qualitative Chemical Analysis; during the second, either Blowpipe Analysis and Determinative Mineralogy, or Qualitative Chemical Analysis as the student may elect, This course is elective for all who have completed Course 1.

4. During the first part of the year Recitations twice a week, in Cooke's Chemical Philosophy. Followed during the last half year by lectures in Organic Chemistry. Elective for members of the Junior and Senior Classes.

5. Lectures and Recitation in Chemical Technology twice a week. Wagner's Chemical Technology. Elective for members of the Junior and Senior Classes. Courses 4 and 5 are given in alternate years.

6. Quantitative Chemical Analysis. The full course extends over two years with sixteen periods per week, counting as eight. This course, or part of it, is elective for all students who have completed Courses 1 and 3. It includes Gravimetric Analysis, Volumetric Analysis, the analysis of Minerals, Ores, Soils, Fertilizers, Commercial Products, Water Analysis, Organic Analysis, and Assaying.

For the benefit of those who intend to study Medicine or Pharmacy after graduation, this course is modified so as to include the elements of Medical Chemistry.

Students taking Course 6, will find it convenient to have a reading knowledge of German.

The New Laboratories for this department are constructed and fitted up in the most approved manner. They include a Laboratory for general Chemistry and Qualitative Analysis, one for Quantitative Analysis, one for Assaying and Metallurgy, a balance-room, store-rooms, &c.

Books of Reference.—Besides the scientific books in the College Library, about one hundred volumes of standard works on Chemistry and Physics are constantly accessible to students in this department.

V.—HISTORY AND POLITICAL ECONOMY.

1. History of Rome, including the Empire. Text book, Leighton's History of Rome. Twice a week. Elective for all students in the Freshman Class.

2. Review of the Modern History of England, France and Germany, and the Period of the Reformation in Europe. Essays are required of the students on the great Reformers. Twice a week. Elective for all students in the Sophomore Class.

3. The Elements of Political Economy, with the discussion of some of the practical questions of the day, prominent among them being Protection and Free Trade, Corporations in the United States, Civil Service Reform, Labor Associations and Trades' Unions, and Socialism. Twice a week. Required of all members of the Junior Class.

4. Hallam's Middle Ages the first half year; the last half year the Principles of Constitutional Government and Law, including the principles of government in the State and Nation. Twice a week. Elective for all students in the Senior Class.

VI.—ENGLISH.

The instruction in this department consists of Lectures, Readings, and Recitations, as follows:

1. Rhetoric and Composition, one exercise per week, with constant practice in writing essays. This work is required of all students throughout the entire four years.

2. A course of critical reading in authors of the Nineteenth century, twice a week. This course extends over two years. It is the regular work of the Literary Sections of the Freshman and Sophomore Classes, and is elective for other students in those classes.

3. A course of critical reading in authors prior to the Nineteenth century, from Chaucer down, four times a week, and extending through two years. This course is required of the Literary Sections of the

Junior and Senior Classes, and elective for other students in these classes.

4. A course of forty lectures on English Literature, extending over two years. Attendance upon these is required of all students who elect English, and is optional with others.

VII.—GERMAN.

1. Beginning German. The Grammar, with constant practice in writing exercises; reading German ballads and easy prose; conversational exercises. Four times a week. Elective for students in the Freshman and Sophomore classes who have not previously studied German.

2. Stories—*Aus dem Leben eines Taugenichts*; German plays—*Eigensinn*, *Einer muss heirathen*, etc.; exercise in writing German; conversation. Four times a week. Elective for students in the Freshman and Sophomore Classes who have completed Course 1 or an equivalent.

3. Schiller's *Wilhelm Tell*, *Maria Stuart*, etc.; dictation; writing; conversation. Twice a week. Elective for students who have completed Courses 1 and 2 or an equivalent amount.

4. Goethe or Lessing; Schiller's Prose; studies in the history of German Literature; conversation and writing. Twice a week. Elective for students who have completed Courses 1, 2 and 3, or an equivalent amount.

VIII.—FRENCH.

1. Beginning French. Magill's Grammar and Reader; Writing French Exercises. Four times a week. Elective for those who have not previously studied French.

2. Fénelon's *Télémaque*; Magill's Grammar. Four times a week. Elective for those members of the Freshman Class who have completed Course 1, or an equivalent.

3. Magill's Prose and Poetry; Magill's Grammar. Four times a

week. Elective for students in the Freshman and Sophomore Classes who have completed Courses 1 and 2, or an equivalent amount.

4. Bôcher's College Series of Plays; Dumas's Napoleon, etc.; Magill's Grammar. Twice a week. Elective for students who have completed Courses 1, 2 and 3, or an equivalent amount.

5. Corneille's Cid; Racine's Athalie; Molière's Misanthrope, etc.; Familiar Lectures in French on French Literature; Magill's Grammar. Twice a week. Elective for students in the Senior Class who have completed Courses 1, 2 and 3, or an equivalent amount.

IX.—ITALIAN AND SPANISH.

1. **Italian.**—The Grammar with written Exercises; I Promessi Sposi, Nicolo dei Lapi. Four times a week.

2. **Spanish.**—Knapp's Spanish Grammar and Spanish Readings. Don Quijote, etc. Four times a week.

These courses are given in alternate years. During the year 1883-4 the Spanish will be given. They are elective only for those who have completed Courses 1 and 2 in Latin, or Courses 1 and 2 in French.

X.—MECHANICS AND ENGINEERING.

This course is especially intended to give a good preparation to those students who are expecting to become either Civil or Mechanical Engineers. The studies and exercises are so arranged that its graduates will be prepared to become immediately useful in the office, works, or field, in subordinate positions, and, after a fair amount of such practice, to design and to take charge of important works.

The College is well provided with the necessary field instruments, and each student is made familiar with their uses and management, by practical work in the field, carefully planned to illustrate the actual practice of the engineer.

The Draughting Room is large, well lighted, warmed, and ventilated, and is furnished with adjustable tables, models, drawings, etc.

The Mechanical Laboratory contains an Olsen's testing machine, arranged for tensile, compressive and transverse tests, and an excellent and complete assortment of tools, including screw-cutting engine lathes, speed-lathes, (simple and back-géared), an iron planer, a complete universal milling machine, a shaper, a twist drill grinder, an upright drill, emery grinder, etc., besides forges, and the many necessary small tools. Additions are constantly being made to this collection, as they are needed, either by manufacture in the laboratory or by purchase. Power is furnished by a four-horse power engine and boiler, the former fitted with an approved indicator, and the latter with the necessary attachments for determining its efficiency, etc.

Regular and systematic instruction is given in the use of tools, machinery and processes. Patterns are made by the students from their own designs and drawings, of machines, or parts of machines, and the castings are made and properly fitted together and finished according to the drawings.

Although, as above stated, the course is especially intended for those who expect to become Engineers, such portions of it as may be pursued with advantage by others, whose time is limited and who do not intend to graduate, are open to them.

The details of the course vary somewhat from year to year, but, in general, are represented by the following arrangement of the studies:

FRESHMAN YEAR.—The Elements of Draughting, including the use of instruments, India ink and colors, followed by Elementary Projections, Elements of Structures, Shades and Shadows, and Isometrical Drawings, with recitations, and the construction in wood and metal of models of the more difficult drawings.

SOPHOMORE YEAR.—Analytical Mechanics of Solids and Fluids. Descriptive Geometry, including Shades, Shadows, and Perspective, and the careful construction of the more important problems, followed in the spring by Land Surveying, with Field Practice and Map Drawing. Instruction in the use of tools is begun, and models illustrative of the problems in Descriptive Geometry are required to be made.

JUNIOR YEAR.—The Junior and Senior Classes are united during the remainder of the course, thus forming one Engineering Class, and the remaining studies and exercises of the course are so distributed as to occupy the two years, they being repeated during alternate years. The details are given under Senior Year.

SENIOR YEAR.—The following are the studies and exercises required of the Senior and Junior Classes:

1. *Engineering.*—Theory, Adjustment, and Use of Engineering Field Instruments; Leveling; Topographical, Triangular, and Hydrographical Surveying; Theory and Practice of Road Engineering; Building Materials; Stability of Structures; Foundations and Superstructures; Bridge Construction.

2. *Applied Mechanics.*—Friction and other Resistances; Stress and Strength of Materials; Practical Hydraulics; Practical Pneumatics; General Theory of Machines; Theory of Prime Movers, Steam Engines, Turbines, etc.; Measurement of Power.

3. *Mechanism.*—Principles of Mechanism, of Machine Design, of the Transmission of Power; Construction and use of Tools.

4. *Draughting.*—Stone-Cutting Problems; Topographical, Structure and Machine-Drawing; Plans, Profiles, and Sections of Road Surveys; Working Drawings.

5. *Practical Exercises* in the field, in the early fall and late spring months; in pattern making and casting in brass, and general machine-shop practice, including the forging, shaping, tempering, use and care of tools, the filing, turning, planing, boring, etc., of metals, the finishing and fitting up of machines or parts of machines, the setting up, testing, and management of steam engines, boilers and machinery, throughout the year; with occasional visits to mechanical establishments, and to important engineering works in or near Philadelphia.

XI.—TEACHING.

1. *Beginning Course.* Lectures on Principles of Teaching and School Government. Twice a week. Elective for students in any of the classes.

2. Lectures on methods of teaching History and Geography. Fitch's Lectures on Teaching, delivered at Cambridge University, England, are read by the class. Twice a week. Elective for all students who have completed Course 1.

3. Lectures on methods of teaching Language and Mathematics. Twice a week. Elective for all students who have completed Course 1.

Courses 2 and 3 are given in alternate years.

4. Practice in teaching, twice a week. Required of all students who are taking Courses 1, 2 or 3.

This course is not elective for other students.

The Teacher's Diploma is given at graduation, in addition to the regular baccalaureate degree, to those students who have included among their elective studies all of the above courses. To those who have completed one or two of the first three courses with the corresponding amount of practice, and have done good work in other departments, suitable certificates will be given.

XII.—ELOCUTION.

The demand for good speakers and readers in every sphere of life, is recognized in the attention given to this course. The aim is to give the student a broad and general culture in natural delivery, and a mastery of the laws underlying the art of expression. He is taught that *conversation*, the simplest form of human expression, is the basis of every kind of delivery.

In the culture of the speaking-voice, care is taken that it be natural, pure and full ; that the articulation be correct and distinct ; and that the expression be adapted to the sense.

The Discipline in Elocution consists in Physical Training ; Respiration ; Vocal Culture ; with special attention to the Production of Tone and Quality of Voice ; Phonic Analysis, Articulation and Orthoëpy ; and public Exercises in Reading and Delamation throughout the College Course.

XIII.—LATIN.

The following courses are offered in Latin, all of which the student must complete to obtain the degree of A. B. In all the courses there are four recitations per week :

1. Harkness's Latin Prose Composition ; Virgil's *Æneid* ; Cicero's Orations ; Translations at sight. This is the work of the classical section of the Freshman Class. It is elective for properly qualified students of the Scientific and Literary sections of any of the classes.

2. Exercises in Latin Prose Composition ; Cicero's Orations ; Livy ; Translations at sight. This course is pursued by the classical section of the Sophomore Class, and is elective for students in the Scientific and Literary sections of any of the classes who have completed Course 1, or an equivalent.

3. Horace's Odes ; Cicero's *De Claris Oratoribus* ; *De Oratore*, *De Senectute*, and *De Amicitia*.

4. Horace's Satires and Epistles ; Tacitus's *Agricola* and *Germania* ; Satires of Juvenal ; Selections from Lucretius.

Courses 3 and 4 are given in alternate years, and are pursued by the classical sections of the Junior and Senior Classes combined. They are elective for all other students who have completed Courses 1 and 2, or an equivalent amount.

XIV.—GREEK.

Each year opportunity is offered for beginners in Greek, and students who have previously studied it go on in advanced classes. The courses are all elective. They extend over four years, with four recitations per week, and are as follows :

FIRST YEAR.—Goodwin's Grammar ; Xenophon's *Anabasis*.

SECOND YEAR.—Fernald's Greek Historians ; Homer's *Iliad* or *Odyssey* ; Greek Prose Composition ; Goodwin's Greek Moods and Tenses.

THIRD YEAR.—Plato's *Phædo* or *Apology* of Socrates ; The *Hecuba* or *Medea* of Euripides ; Greek Composition.

FOURTH YEAR.—The *Antigone* of Sophocles or the *Prometheus* of Æschylus; Demosthenes on the Crown; Lysias or Isocrates; History of Greek Literature (Lectures.)

XV.—MENTAL AND MORAL PHILOSOPHY.

The instruction in this department is given by lectures once a week, with occasional examinations. Attendance is required of all sections of the Senior Class. The subject is presented historically, with outlines of the different schools of Philosophy.

LIMITATIONS IN THE CHOICE OF ELECTIVES.

1. Candidates for the Degree of *Bachelor of Arts*, must include among their electives, all the courses in Latin, and all the courses in Greek; or they may substitute French and German for any or all the courses in Greek.

2. Candidates for the Degree of *Bachelor of Letters*, must include among their electives, all the courses in English, History, French and German.

3. Candidates for the Degree of *Bachelor of Science*, must include among their electives, during the first year, four periods of Science per week; during the second year six periods; during the third year eight periods; and during the fourth year ten periods.

4. In order to be eligible for the Degree of *Civil Engineer*, (three years after graduation), the Bachelor of Science must have included among his electives, all the courses in Mathematics and Astronomy, and all the courses in Mechanics and Engineering. (See pages 28-30.)

Besides the regular departments of instructions, opportunity is offered each year for students to join classes in Bookkeeping, Phonography, and in Freehand Drawing and Painting.

The following is a tabular view of the required and elective studies for each class. Each exercise occupies 45 minutes :

STUDIES OF THE FIRST YEAR.

FRESHMAN CLASS.

	Page.	No. of Ex. per week.
Mathematics,	23	4
Natural History,	23	2
Rhetoric and Composition,	26	1
Elocution,	31	1
Elective,	33	12
Total,		20

ELECTIVE STUDIES.

Latin,	32	4
Greek,	32	4
Engineering, including Draughting,	28	4
German,	27	4
French,	27	4
Teaching,	30	4
Chemistry (Lectures and Practice),	24	4
Chemistry (Lectures alone),	24	2
English,	26	2
History,	26	2
Freehand drawing or Painting,	—	4=2

STUDIES OF THE SECOND YEAR.

SOPHOMORE CLASS.

	Page.	No. of Ex. per week.
Mathmatics,	23	2
Botany,	23	2
Physics,	24	2
Rhetoric and Composition,	26	1
Elocution,	31	1
Elective,	33	12
Total,		20

ELECTIVE STUDIES.

Latin,	32	4
Greek,	32	4
German,	27	4
French,	27	4
Chemistry (Lectures and Practice),	24	4
Engineering,	29	4
Teaching,	30	4
History,	26	2
English,	26	2
Mathemetics,	23	2
Mechanics,	29	2
Natural History,	22	2
Drawing and Painting.	—	4=2

STUDIES OF THE THIRD YEAR.

JUNIOR CLASS.

	Page.	No. of Ex. per. week.
Political Economy and Social Science,	26	2
Rhetoric and Composition,	26	1
Elocution,	31	1
Elective,	33	16
Total,		20

ELECTIVE STUDIES.

Latin,	32	4
Greek,	32	4
Mathematics,	22	4
Teaching (Theory and Practice)	30	4
English,	26	4
Field and Shop Practice and Graphics,	30	10=4
Mechanics and Engineering,	30	8
Chemistry (Practice)	23	2 to 8
Chemistry (Lectures),	23	2
Physics,	22	2
French,	27	2
German,	27	2
Italian or Spanish,	28	4

STUDIES OF THE FOURTH YEAR.

SENIOR CLASS.

	Page.	No. of Ex. per week.
Mental Philosophy,	33	1
Geology,	24	1
Rhetoric and Composition,	26	1
Elocution,	31	1
Elective,	33	16
Total		<hr/> 20 <hr/>

ELECTIVE STUDIES.

Latin,	32	4
Greek,	32	4
English,	26	4
Field and Shop Practice and Graphics,	30	10=4
Mechanics and Engineering,	30	8
Teaching (Theory and Practice),	30	4
Chemistry (Practice),	23	2 to 8
Chemistry (Lectures),	23	2
Astronomy,	22	4
French,	27	2
German,	27	2
History,	26	2
Italian or Spanish,	28	4

SECOND DEGREES.

After 1884, all candidates for the Masters's Degree will be required to pursue a course of study at Swarthmore, or elsewhere, under the direction of the Faculty, and to pass examinations in the same.

Upon application to the Faculty, the course will be assigned, and students may present themselves from time to time for examination in such parts of it as they may have completed. Persons residing at the College, and devoting their whole time to the work, can accomplish a sufficient amount in one year ; for non-resident candidates, who are at the same time engaged in other work, the course must occupy not less than two years.

The Degree of C. E., will be given to all Bachelors of Science of the Engineering Department who shall have been engaged, for not less than three years, in professional practice, in positions of responsibility, and who shall present an acceptable thesis upon a subject pertaining to Civil Engineering.

At present the Second Degrees are also conferred upon the following conditions :

The Degree of A. M. will be given, three years after graduation, to all Bachelors of Arts who shall have engaged, during that period, in professional or literary studies, and who shall present an acceptable thesis.

The Degree of M. L. will be given, three years after graduation, to all Bachelors of Letters who shall have engaged, during that period, in professional or literary studies, and who shall present an acceptable thesis.

The Degree of M. S. will be given, three years after graduation, to all Bachelors of Science, who shall have engaged, during that period, in professional or scientific studies, and who shall present an acceptable thesis upon some scientific subject.

Applications for the Second Degree must be made, and the thesis presented at least *three months* before Commencement.

STUDENTS.

SENIOR CLASS.

<i>Names.</i>	<i>Sections.</i>	<i>Residences.</i>
Francis G. Caldwell	Eng.	<i>Philadelphia, Pa.</i>
Horace L. Dilworth	Eng.	<i>Centerville, Del.</i>
Rebecca M. Downing	Lit.	<i>Philadelphia, Pa.</i>
John D. Furnas	Eng.	<i>Waynesville, Ohio.</i>
Sarah L. Hall	Cl.	<i>Philadelphia, Pa.</i>
Henry J. Hancock	Cl.	<i>Philadelphia, Pa.</i>
Mary E. Hughes	Cl.	<i>Hughesville, Va.</i>
Laura H. Satterthwait	Cl.	<i>Trenton, N. J.</i>
Frederic J. Taylor	Eng.	<i>Minneapolis, Minn.</i>
Mary Willits	Cl.	<i>Jericho, N. Y.</i>

Seniors—10.

JUNIOR CLASS.

<i>Names.</i>	<i>Sections.</i>	<i>Residences.</i>
Minnie F. Baker	Cl.	<i>Easton, N. Y.</i>
William H. Bowne, Jr. . . .	Eng.	<i>Glen Cove, N. Y.</i>
Philip Q. Churchman	Cl.	<i>Wilmington, Del.</i>
Charles P. Darlington	Cl.	<i>Darlington, Pa.</i>
Abigail Evans	Cl.	<i>Cinnaminson, N. J.</i>
Edwin Haviland, Jr.	Eng.	<i>Plainfield, N. J.</i>
Frederick Moore	Cl.	<i>Sandy Spring, Md.</i>
Mary D. Pratt	Cl.	<i>Concordville, Pa.</i>

Juniors—8.

SOPHOMORE CLASS.

<i>Names.</i>	<i>Sections.</i>	<i>Residences.</i>
Emma S. Bones	Lit. .	<i>New York, N. Y.</i>
Rebekah M. Boyd	Cl. .	<i>Philadelphia, Pa.</i>
Elizabeth H. Cocks	Irreg. .	<i>Old Westbury, N. Y.</i>
Arthur D. Cochran	Sc. .	<i>Westtown, Pa.</i>
Nathan H. Conrow, Jr.	Sc. .	<i>Cinnaminson, N. J.</i>
George J. Freedley	Sc. .	<i>Richmond, Va.</i>
Ella Griest	Cl. .	<i>Floradale, Pa.</i>
Martha Hollinshead	Cl. .	<i>Moorestown, N. J.</i>
Sarah A. Hoopes	Irreg. .	<i>West Chester, Pa.</i>
Helen G. Johnson	Cl. .	<i>Muncy, Pa.</i>
Frederic C. Kohl	Sc. .	<i>San Mateo, Cal.</i>
J. Lawrence Lippincott	Sc. .	<i>Philadelphia, Pa.</i>
Ella Merrick	Cl. .	<i>Wrightstown, Pa.</i>
Sarah B. Muttersbough	Cl. .	<i>Philadelphia, Pa.</i>
Edgar Smedley	Sc. .	<i>Media, Pa.</i>
Samuel Smedley, Jr.	Sc. .	<i>Media, Pa.</i>
Rowland J. Spencer	Lit. .	<i>Curwensville, Pa.</i>
Annie Underhill	Irreg. .	<i>Glen Head, N. Y.</i>
Martha M. Watson	Cl. .	<i>Trenton, N. J.</i>
C. Percy Wilcox	Cl. .	<i>Philadelphia, Pa.</i>
Abby Williamson	Cl. .	<i>West Chester, Pa.</i>
Mary W. Willis	Irreg. .	<i>Old Westbury, N. Y.</i>

Sophomores—22.

FRESHMAN CLASS.

<i>Names.</i>	<i>Sections.</i>	<i>Residences.</i>
Elizabeth H. Angell	Cl.	<i>Ghent, N. Y.</i>
Isaac Meredith Bailey	Sc.	<i>Marlboro, Pa.</i>
Louise Beeson	Lit.	<i>Uniontown, Pa.</i>
Mahlon Betts	Sc.	<i>Wilmington, Del.</i>
Walter A. Brown	Sc.	<i>Washington, D. C.</i>
Andrew Cadwallader	Sc.	<i>Morrow, Ohio.</i>
Chas. J. Chabot	Sc.	<i>San Antonio, Texas.</i>
Mary J. Clothier	Irreg.	<i>Sharon Hill, Pa.</i>
Emma A. Cole	Irreg.	<i>New York, N. Y.</i>
Alfred T. Conrow	Sc.	<i>Philadelphia, Pa.</i>
Anna S. Darlington	Cl.	<i>Darlington, Pa.</i>
Horace Darlington	Sc.	<i>Darlington, Pa.</i>
Fred. B. Dilworth	Sc.	<i>Centreville, Del.</i>
Carrie L. Dodge	Cl.	<i>Council Bluffs, Iowa.</i>
Julia E. Eves	Irreg.	<i>Millville, Pa.</i>
Emma I. Forman	Irreg.	<i>New York, N. Y.</i>
Henry B. Goodwin	Irreg.	<i>Philadelphia, Pa.</i>
Louis H. Jackson	Sc.	<i>Fort Sully, Da.</i>
Gertrude W. Kent	Lit.	<i>Hockessin, Del.</i>
M. Elizabeth La Fetra	Lit.	<i>Manasquan, N. J.</i>
Frederic K. Lane	Sc.	<i>Philadelphia, Pa.</i>
J. Haines Lippincott	Sc.	<i>Riverton, N. J.</i>
Henry H. Lippincott	Sc.	<i>Cinnaminson, N. Y.</i>
Milton S. Monroe	Sc.	<i>Eagle Pass, Texas.</i>
George H. Moore	Sc.	<i>Sandy Spring, Md.</i>
Linda B. Palmer	Cl.	<i>West Chester, Pa.</i>
Horace Roberts	Cl.	<i>Fellowship, N. J.</i>
Delamere Skerrett		<i>Jamestown, N. Y.</i>
Elizabeth A. Smedley	Lit.	<i>Media, Pa.</i>
Elizabeth B. Smedley	Cl.	<i>Willistown, Pa.</i>

Hugh E. Steele	Sc.	. Chadds Ford, Pa.
Alice B. Taylor	Cl.	. Minneapolis, Minn.
Ruth Elizabeth Taylor	Cl.	. Wilmington, Del.
William G. Underwood	Sc.	. Elizabeth City, N. C.
Miriam Watson	Cl.	. Doylestown, Pa.
Samuel B. Wood	Sc.	. Winchester, Va.
Harry S. Woodworth	Irreg.	. Rochester, N. Y.
Henry M. Woodman	Sc.	. Crosswicks, N. J.

Freshman—38.

UNCLASSIFIED STUDENTS.

George T. Barnsley . . . . .	. . . . .	Huntingdon Valley, Pa.
Caroline J. Dummig . . . . .	. . . . .	Germantown, Pa.
M. Naomi Gaskill . . . . .	. . . . .	Swarthmore, Pa.
Anna Jackson . . . . .	. . . . .	West Chester, Pa.
Martha B. Miller . . . . .	. . . . .	Allegheny City, Pa.

SUMMARY.

Seniors	10
Juniors	8
Sophomores	22
Freshmen	38
Unclassified	5
	<hr/>
Total,	83
	<hr/>

SUMMARY BY STATES.

Pennsylvania	38
New Jersey	11
New York	12
Delaware	6
Virginia	3
Maryland	2
Minnesota	2
Ohio	2
Texas	2
California	1
Dakota	1
District of Columbia	1
Iowa	1
North Carolina	1
	<hr/>
Total,	83
	<hr/>

Officers of the Alumni Association.

INCORPORATED 1882.

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FANNIE A. WILLETS, *No. 203 E. Hanover St., Trenton, N. J.*

GRADUATES.

CLASS OF 1873.

Sarah H. Acton, A. B.	<i>Salem, N. J.</i>
Helen Magill, A. B. (Ph. D. Boston University, 1877).	. . . . .	<i>West Bridgewater,</i> <i>Mass.</i>
Elizabeth C. Miller, A. B.	. . . . .	<i>Swarthmore College.</i>
Esther T. Moore, A. B.	. . . . .	<i>Sandy Spring, Md.</i>
* Maria C. (Pierce) Green, A. B.	. . . . .
Lowndes Taylor, A. B.	. . . . .	<i>Minneapolis, Minn.</i>

CLASS OF 1874.

Ellen H. (Evans) Price, A. B.	. . . . .	<i>Philadelphia, Pa.</i>
Amy W. (Hall) Hickman, A. B.	. . . . .	<i>West Chester, Pa.</i>
* Alfred T. Haviland, B. S.	. . . . .
Mary (Hibbard) Thatcher, A. B.	. . . . .	<i>Henry Clay, P. O., Del.</i>
Herman Hoopes, C. E., 1879.	. . . . .	<i>Philadelphia, Pa.</i>
Ferris W. Price, A. B.	. . . . .	<i>Philadelphia, Pa.</i>
Elizabeth S. (Woolston) Collins, A. B.	. . . . .	<i>Mt. Washington, Md.</i>

CLASS OF 1875.

John B. Booth, A. B.	. . . . .	<i>Thurlow, Pa.</i>
Helen T. Comly, A. B.	. . . . .	<i>Philadelphia, Pa.</i>
Franklin H. Corlies, B. S.	. . . . .	<i>Philadelphia, Pa.</i>
* Herbert G. Dow, A. B.	. . . . .
Lizzie (Hanes) Taylor, A. B.	. . . . .	<i>Woodstown, N. J.</i>

Edith R. (Hooper) Roberts, A. B.	<i>Warren, Pa.</i>
Barton Hoopes, Jr., B. S.	<i>Philadelphia, Pa.</i>
* Oliver Keese, Jr., B. S.	
J. Reece Lewis, B. S.	<i>Media, Pa.</i>
Howard W. Lippincott, A. B.	<i>Philadelphia, Pa.</i>
Martha (McIlvain) Eastwick, A. B.	<i>Philadelphia, Pa.</i>
John K. Richards, A. B., (and Harvard, 1879)	<i>Ironton, Ohio.</i>
William H. Ridgway, C. E., 1879.	<i>Coatesville, Pa.</i>

CLASS OF 1876.

Frank L. Bassett, B. S., (D. D. S. Philad., Dental College, 1878)	<i>Philadelphia, Pa.</i>
Arthur W. Bradley, A. B.	<i>Philadelphia, Pa.</i>
Frances Linton, A. M., 1881	<i>Fox Chase, Pa.</i>
Elizabeth L. (Longstreth) Boyd, A. B.	<i>Sharon Hill, Pa.</i>
James T. McClure, B. S.	<i>Philadelphia, Pa.</i>
Emma McIlvain, A. B.	<i>Philadelphia, Pa.</i>
Edwin Mitchell, Jr., A. B.	<i>New York, N. Y.</i>
Lucy R. Price, A. B., (1880)	<i>West Chester, Pa.</i>
Isaac G. Smedley, B. S. (M. D. Hahneman Med. Col., 1879)	<i>Philadelphia, Pa.</i>
Herbert W. Smyth, A. B.	<i>Williamstown, Mass.</i>
Mary Willets, A.M., 1881, (M. D. Women's Med. Col., Phil., 1881)	<i>Germantown, Pa.</i>
William P. Worth, B. S.	<i>Coatesville, Pa.</i>

CLASS OF 1877.

Joseph T. Bunting, B. S., (LL. B. Univer- sity of Penna., 1880)	<i>Philadelphia, Pa.</i>
Norman B. Corson, A. B.	<i>Norristown, Pa.</i>
Eudora Magill, A. B.	<i>West Bridgewater,</i> <i>Mass.</i>

Jesse R. Norton, A. B.	Ironton, O.
Carroll R. Williams, A. M., 1882, (LL. B., University of Pa., 1880)	Philadelphia, Pa.
Florence M. Yeatman, A. B.	London Grove, Pa.

CLASS OF 1878.

Caroline E. Burr, A. B.	Germantown, Pa.
Maybell P. Davis, A. B.	Newtonville, Mass.
Howard Dawson, A. M., 1882	Boston, Mass.
Tacy A. Gleim, A. B.	Fort Collins, Col.
William J. Hall, B. S.	West Chester, Pa.
Mary P. Hallowell, A. M., 1881, (M. D. Women's Med. Col., of Philad., 1881)	Davis Grove, Pa.
Charles A. Hawkins, A. B.	Fawn Grove, Pa.
William Penn Holcomb, M. L., 1881	
<i>Johns Hopkin's University, Baltimore, Md.</i>	
Rebecca S. Hunt, A. M., 1881, (M. D. Wo- men's Med. Col. of Philad., 1881)	Norristown, Pa.
Anna E. (Jackson) Monaghan, B. L.	West Chester, Pa.
Llewellyn H. Johnson, B. S.	Orange, N. J.
Edward Martin, A. M., 1882, (M. D. Univ. of Pennsylvania, 1883)	Philadelphia, Pa.
Francis J. Palmer, B. S.	Brooklyn, N. Y.
Israel Roberts, B. S.	Camden, N. J.
William Seaman, B. S.	Brooklyn, N. Y.
C. Harry Shoemaker, B. S.	Philadelphia, Pa.

CLASS OF 1879.

Isaac R. Coles, C. E., 1880	Glen Cove, N. Y.
William P. Fender, A. B.	Philadelphia, Pa.
William Lea Ferris, A. B.	Wilmington, Del.
Joseph Fitch, A. B.	New York, N. Y.
Ruth Anna Forsyth, A. B.	Moorestown, N. J.

Elizabeth Furnas, B. L.	Waynesville, O.
P. Lesley Hopper, A. B.	Havre de Grace, Md.
Marie A. Kemp, A. B.	Harrisburg, Pa.
Elisha E. Lippincott, B. S.	Philadelphia, Pa.
Samuel Craig McComb, C. E., (1882)	Philadelphia, Pa.
Charles R. Miller, B. L. (LL. B. Univ. of Penna., 1881)	Philadelphia, Pa.
Josephine (White) Breckens, A. B.	Gilberton, Pa.
Abigail M. Woodnutt, B. L.,	Philadelphia, Pa.

CLASS OF 1880.

Anne E. Constable, A. B.	Philadelphia, Pa.
Arthur Coleman Dawson, B. L., (1882)	Lowell, Mass.
Florence Hall, A. B.	West Chester, Pa.
Myra T. Hillman, A. B.	Washington, D. C.
Emily L. (Hough) Savidge, A. B., (and Univ. of Minn., 1881)	Kearney, Neb.
Edward H. Keiser, M. S., (1881)	
<i>Johns Hopkin's University,</i>	Baltimore, Md.
Georgeine Kurtz, A. B.	Reading Pa.
Albert R. Lawton, A. B.	New York, N. Y.
Robert J. Marcher, B. S.	High Bridge, N. Y.
Thomas L. Moore, A. B.	Sandy Spring, Md.
Ellen S. Preston, A. B.	Philadelphia, Pa.
John Turton, B. S.	New York, N. Y.
Fannie A. Willets, A. B.	Trenton, N. J.
Henry S. Wood, C. E., (1883)	Philadelphia, Pa.

CLASS OF 1881.

Martha Bunting, B. L.	Sharon Hill, Pa.
William Canby, Jr., B. L.	Baltimore, Md.
Charles B. Doron, B. L.	Elsah, Ill.
Mary J. Elliott, B. L.	Philadelphia, Pa.

Emma Kirk, B. L.	Bryn Mawr, Pa.
Gertrude B. Magill, A. B.	West Bridgewater, Mass.
Eugene Paulin, Jr., A. B.	Denver, Col.
Martha E. Rhinoehl, A. B.	Lebanon, Pa.
Edward C. Rushmore, B. S.	Cooksburg, N. Y.
Henry B. Seaman, B. S.	Philadelphia, Pa.
Charles E. Sharpless, B. S.	Media, Pa.
Alvin T. Shoemaker, B. L.	New York, N. Y.
J. Bryon Thomas, B. S.	Cheyney, Pa.
Ernest F. Tucker, A. B.	Boston, Mass.

CLASS OF 1882.

William Llewellyn, Baner, A. B.	New York, N. Y.
Edith B. Blackwell, A. B.	Somerville, N. J.
Charlotte E. Brewster, B. L.	Cinnaminson, N. J.
William Butler, Jr., A. B.	West Chester, Pa.
C. Herbert Cochran, A. B.	Philadelphia, Pa.
Bertha Cooper, B. L.	Camden, N. J.
P. Fannie Foulke, A. B.	Philadelphia, Pa.
Mary E. Gale, A. B.	Locust Valley, N. Y.
Sarah S. Green, A. B.	Moorestown, N. J.
Margaret E. Hallowell, A. B.	Swarthmore, Pa.
Elizabeth E. Hart, B. L.	Philadelphia, Pa.
Elizabeth Haslam, B. L.	Parry, N. J.
Elizabeth M. Ogden, B. L.	West Chester, Pa.
Charles Palmer, A. B.	Locust Valley, N. Y.
* George C. Phillips, B. S.	
Horace L. Rossiter, A. B.	Philadelphia, Pa.
Charles B. Turton, B. S.	New York, N. Y.
Gerrit E. H. Weaver, A. B.	
Harvard University, Cambridge, Mass.	
Emily E. Wilson, A. B.	London Grove, Pa.
Edgar M. Zavitz, A. B.	Coldstream, Ont., Can.

CLASS OF 1883.

Charles A. Bunting, B. S.	<i>Sharon Hill, Pa.</i>
John L. Cochran, B. S.	<i>Folly Mills, Va.</i>
Edgar Conrow, B. L.	<i>Cinnaminson, N. J.</i>
Lydia S. Green, A. B.	<i>Jenkintown, Pa.</i>
Florence N. Hanes, A. B.	<i>Eldridge's Hill, Woodstown, N. J.</i>
Alice W. Jackson, A. B.	<i>Germantown, Pa.</i>
William A. Kissam, Jr., B. S.	<i>Little Neck, N. Y.</i>
Bertha Matlack, B. L.	<i>Camden, N. J.</i>
Guion Miller, A. B.	<i>Sandy Spring, Md.</i>
E. Duffield Mitchell, A. B.	<i>West Chester, Pa.</i>
Edward A. Pennock, A. B.	<i>London Grove, Pa.</i>
George L. Pennock, B. S.	<i>Darby, Pa.</i>
Charles S. Pyle, B. S.	<i>Philadelphia, Pa.</i>
Helen C. Pyle, A. B.	<i>Wilmington, Del.</i>
Frederick A. Seaman, Jr., B. S.	<i>Madison, N. J.</i>
Annie E. Tylor, B. L.	<i>Easton, N. Y.</i>
James E. Verree, B. L.	<i>Verreeville, Pa.</i>
Emma Webb, A. B.	<i>Philadelphia, Pa.</i>

Graduates and other former members of the College, are requested to send their present addresses to the REGISTRAR, Arthur Beardsley, at the College, and to keep him informed of any changes in the same as they occur.

* Deceased.

THE PREPARATORY SCHOOL.

This school is intended to prepare students for the Freshman Class in the College, or to furnish a good practical education to those desiring a shorter course.

Most of the studies are required of all, as experience has clearly shown that young students make much more satisfactory progress when pursuing a regularly required course, even for a single year, without any idea of graduation, than when they select all their studies for themselves.

Students in class A and the College Preparatory Class may elect the Theory and Practice of Teaching. Such students, who expect to teach the following year, may substitute for a part of the regular work, a thorough review of Arithmetic and the other elementary branches usually included in the examination of teachers for the public schools.

In arranging the course of study, we have had in view a complete and harmonious organization of all Friends' Schools throughout the country; and it is hoped that committees and teachers of these schools will unite with us in securing this very important end. In all Friends' Schools whose grade is so adjusted that certain classes, in the judgment of the Faculty, correspond with ours, students who complete the course of study in any class will be admitted to the class in this school, corresponding with the next higher in their own, without re-examination, on presenting certificates to that effect from the Principals of their respective schools.

CONDITIONS OF ADMISSION.

Examinations for classification will be held on Third, Fourth, and Fifth days, the 9th, 10th, and 11th of Ninth month, 1884. Candidates must present themselves at three o'clock P. M. on Third-day, the 9th of Ninth month. A written statement in regard to scholarship from the pupil's last teacher will receive due consideration.

Candidates for admission to the lowest class will be examined in the fundamental rules of Arithmetic, United States money and Reduction of Fractions, in the Geography of the United States, and in Reading and Spelling.

Pupils will not be admitted unless well prepared in the above subjects, and none will be received who are under thirteen years of age.

Instructors in the Preparatory School.

EUGÈNE PAULIN, A. M.,

French, and in charge of the Discipline of the boys. †

SAMUEL S. GREEN, M. S.,

Physics and Chemistry.

JOSEPH W. TEETS,

Reading and Speaking.

MARY L. AUSTIN,

Latin.

ELLEN M. GRISCOM,

Free-Hand Drawing.

AMELIA P. BUTLER,

English Branches.

FREDERICK A. WYERS, A. B.,

Latin and French.

CHARLES C. EAMES, C. E.,

German and English.

ELLEN E. OSGOOD,

History and Geography.

SUSAN W. GILLAM,

Mathematics.

ALMA G. WATSON, B. S.,

In charge of Study Room.

MINNIE S. BLAKIE,

Writing and Spelling.

† The Discipline of the girls is in charge of the Matron of the College.

COURSE OF STUDY.

STUDIES OF THE FIRST YEAR.

CLASS C.

Arithmetic.—Common Fractions, Denominate Numbers and Decimals; Exercises in Mental Arithmetic.

English Language.—Sentence-making; use of Capitals; Analysis of simple sentences; all forms of the Noun, Pronoun and Verb; Composition; Short Poems committed to Memory; Practice in the oral repetition of short stories read to the class.

Reading.—Practice in Reading and Declaiming before the class.

Spelling.—Selected words from the Reading lessons; writing sentences from Dictation; Correction of misspelled words in all written exercises of the class.

History.—Familiar Lectures on the History of the United States.

Geography.—Mathematical and Physical Geography; Descriptive and Political Geography of North and South America; Map Drawing.

Writing.—The Spencerian System.

Drawing.—Smith's Free Hand course.

STUDIES OF THE SECOND YEAR.

CLASS B.

Arithmetic.—Percentage and its applications; Partnership; Ratio and Proportion.

Algebra.—Addition, Subtraction, Multiplication and Division; Simple Equations; Fractions.

English Language.—Practice in Composition ; Essential Principles of the Grammar ; Analysis of Sentences ; the parts of Speech ; Poems and Prose committed to memory.

Reading.—Practice in Reading and Declaiming before the class.

Spelling.—Selected Words ; Dictation Exercises ; Correction of misspelled words in all written exercises.

History.—Anderson's History of England.

Geography.—Review of the Geography of North and South America ; the Geography of Europe, Asia, Africa and Oceanica.

Latin—Harkness's Latin Grammar and Reader ; Cæsar begun.

Writing.—The Spencerian System.

Drawing.—Smith's Free Hand books and outline from the solid.

STUDIES OF THE THIRD YEAR.

CLASS A.

Mathematics.—Algebra to Quadratics ; Geometry Books I. and II.

English Language.—Composition ; Grammar ; Poems and Prose read critically and committed to memory.

Reading.—Practice in Reading and Declaiming before the class.

Spelling.—Selected words ; Dictations ; Correction of misspelled words in all the written exercises of the class.

History.—A general view of Ancient and Modern History, Text-book, Swinton's Outlines.

Natural History.—Physical Geography and Elements of Geology.

Chemistry.—Lectures on Chemistry.

French.—Magill and Paulin's First Lessons in French ; Magill's French Reader.

Latin.—Harkness's Latin Grammar ; Harkness's Latin Prose Composition, Part I. ; Cæsar's Gallic War, Books I and II.

Or English Etymology.

Writing.—The Spencerian System.

Drawing.—Croasdale's Geometrical Drawing Books ; outline and crayon shading from the solid.

STUDIES OF THE FOURTH YEAR.

COLLEGE PREPARATORY CLASS.

Mathematics.—Geometry through Book IV. ; Review of Arithmetic ; Algebra through Quadratic Equations of one unknown quantity.

English Language.—Rhetoric and Composition ; Prose and Poetry read critically and committed to memory ; a brief outline of the History of English Literature.

Reading.—Practice in Reading and Declaiming before the class.

Spelling.—Selected words and Dictation Exercises ; Correction of misspelled words in written exercises.

History.—History of Greece and review of the History of the United States.

Natural History.—Lectures on Comparative and Human Anatomy, Physiology and Hygiene.

Physics.—Recitations and Laboratory Exercises ; Gage's Physics.

Astronomy.—Descriptive Astronomy, with practice in finding the constellations and the principal stars.

Writing.—The Spencerian System.

Drawing.—Linear Perspective, and shading from the solid.

French.—Magill's Grammar and Reader.

Latin.—Harkness's Grammar ; Harkness's Prose Composition, Review of Part I., and the first thirty lessons in Part II., Virgil's *Æneid*, Books I.-IV.

Or German.—Grammar and Practice in writing Exercises ; Ballads and easy Prose.

PERIODS OF RECITATION PER WEEK.

The following table shows the number of exercises per week for each class; the periods being forty-five minutes each. In the younger classes, where a large proportion of the work is done in the classroom, the number of exercises is greater, and diminishes as the pupils become older and better able to prepare their work out of class.

STUDIES.	CLASS C.	CLASS B.	CLASS A.	COLL. PREP.
Mathematics, - -	5	4	3	3
Eng. Language, - -	5	3	3	1
Reading and Speaking,	4	3	2	1
Spelling, - - -	4	3	2	1
Writing, - - -	4	3	2	2
Drawing, (Free-hand)	2	2	2	2
History, - - -	2	3	3	3
Geography, - - -	4	3		
Natural History, -			1	2
French, - - -			3	3
Latin, - - -		4	* { 4 or 4	† { 4 or 4
Etymology, - - -				
German, - - -				1
Physics, - - -				
Chemistry, - - -			1	
Astronomy, - - -				1
	30	28	26	24

*Students of Class A, who do not take Latin, are required to take four periods of Etymology per week.

†Students of the Coll. Preparatory Class, who do not take Latin, are required to take four periods of German per week.

Pupils in Preparatory School.

COLLEGE PREPARATORY CLASS.

Mary Allen	<i>Germantown, Pa.</i>
Maurice J. Arrison	<i>Philadelphia, Pa.</i>
Frederic R. Baker	<i>Philadelphia, Pa.</i>
Ellen Hart Betts	<i>New Hope, Pa.</i>
Benj. G. Bodder	<i>Philadelphia, Pa.</i>
Henry A. Bond	<i>Toledo, Ohio.</i>
Frank A. Brastow,	<i>Wilkesbarre, Pa.</i>
Samuel Brown	<i>New York, N. Y.</i>
George T. Bush	<i>Bellefont, Pa.</i>
Lydia Calvert	<i>St. Davids, Pa.</i>
Mortimer Clark	<i>Philadelphia, Pa.</i>
Elizabeth J. Clothier	<i>Sharon Hill, Pa.</i>
C. Frederick Cope	<i>Philadelphia, Pa.</i>
Emily Y. Davis	<i>W. Conshohocken, Pa.</i>
Joseph H. Dickinson	<i>Cains, Pa.</i>
John Lockwood Dodge	<i>Council Bluffs, Iowa.</i>
William L. Dudley	<i>Washington D. C.</i>
Casper H. Duhring, Jr.	<i>Philadelphia, Pa.</i>
Ethelbert Ekins	<i>Galesburg, Ill.</i>
F. Alfred Errington	<i>Staten Island, N. Y.</i>
Robert P. Ervien	<i>Shoemakertown, Pa.</i>
Joyeuse L. Fullerton	<i>Philadelphia, Pa.</i>
Summerfield Hagerty	<i>Baltimore, Md.</i>
S. Cameron Hinkle	<i>Atlantic City, N. J.</i>
Walter J. Hutton	<i>Richmond, Ind.</i>
Joseph L. Jones, Jr.	<i>Philadelphia, Pa.</i>

Martha P. Jones	<i>Conshohocken, Pa.</i>
William Kemp	<i>Easton, Md.</i>
Harry La Motte	<i>Davids' Island, N. Y.</i>
Ellie Lundy	<i>Pemberton, N. J.</i>
Ellis P. Marshall	<i>London Grove, Pa.</i>
William S. Marshall	<i>Milwaukee, Wis.</i>
Edwin Middleton, Jr.	<i>Philadelphia, Pa.</i>
Caspar W. Miller	<i>Media, Pa.</i>
Lydia A. R. Miller	<i>Allegheny City, Pa.</i>
Ellen Gertrude Moore	<i>Atlanta, Ga.</i>
Frank C. Mosher	<i>West Grove, Pa.</i>
William J. Needles	<i>Philadelphia, Pa.</i>
William G. Norris	<i>Chicago, Ill.</i>
Josephine Phillips	<i>Philadelphia, Pa.</i>
Louisa Powell	<i>Hancock's Bridge,</i> <i>N. J.</i>
Anna R. Pyle	<i>West Grove, Pa.</i>
Henry S. Rich	<i>Marietta, Pa.</i>
Lawrence Satterfield	<i>Greensboro, Md.</i>
Eva M. Seligman	<i>Santa Fe, N. M.</i>
James L. Seligman	<i>Santa Fe, N. M.</i>
Alice P. Sellers	<i>Ridley Park, Pa.</i>
Mary H. Smith	<i>Unionville, Pa.</i>
Portia Haines Smith	<i>Lincoln, Va.</i>
P. Hanson Smyth	<i>Byberry, Pa.</i>
William A. Stevenson	<i>Clark's Green, Pa.</i>
Marguerite Teresea Stinchcomb	<i>W. Washington, D. C.</i>
Charlotte L. Strattan	<i>Altoona, Pa.</i>
Carroll Hopkins Sudler	<i>Philadelphia, Pa.</i>
Ferris H. Swezey	<i>Brooklyn, N. Y.</i>
Howard G. Taylor	<i>Hainesport, N. J.</i>
George W. Thompson	<i>Hazleton, Pa.</i>
Moses W. Thurston	<i>Verona, N. Y.</i>

Mary Anna Tyler	<i>Woodstown, N. J.</i>
Frederic C. Vanstone	<i>Toledo, Ohio.</i>
John Augustus Williams	<i>Poughkeepsie, N. Y.</i>
S. Harry Worth	<i>Wawa, Pa.</i>

CLASS A.

Elizabeth L. Albertson	<i>Norristown, Pa.</i>
Rachel R. Allen	<i>New York, N. Y.</i>
Clayton L. Andrews	<i>Moorestown, N. J.</i>
August Altgelt	<i>Leon Springs, Texas.</i>
Robert B. Baker	<i>Philadelphia, Pa.</i>
Edward Bancroft	<i>Philadelphia, Pa.</i>
Jennie B. Beeson	<i>Uniontown, Pa.</i>
George H. Boyer	<i>Kendall Creek, Pa.</i>
William H. Brooks	<i>Philadelphia, Pa.</i>
Harrold E. Brownfield	<i>Philadelphia, Pa.</i>
Mary S. Bullock	<i>Jacobstown, N. J.</i>
William H. Chandler	<i>Milton, Del.</i>
Morris L. Clothier	<i>Sharon Hill, Pa.</i>
Edwin R. Cochran	<i>Middletown, Del.</i>
Jessie L. Colson	<i>Daretown, N. J.</i>
Emma W. Comfort	<i>Newtown Pa.</i>
Alexander G. Cummins	<i>Smyrna, Del.</i>
Elizabeth R. Dickinson	<i>Cains, Pa.</i>
Laura Lee Dixon	<i>Easton, Md.</i>
William S. Eagle	<i>Cecil, Ohio.</i>
Jeannette Esterbrook	<i>Bridgehampton, N. Y.</i>
William H. Evans	<i>Colorado Springs, Col.</i>
Horace B. Forman	<i>New York, N. Y.</i>
Lida Frost	<i>Philadelphia, Pa.</i>
Ernest Gawthrop	<i>West Grove, Pa.</i>
Daniel M. Griffen	<i>Port Chester, N. Y.</i>
William E. Griffin	<i>Santa Fe, N. M.</i>
Francis Hatcher	<i>Malcolm, Iowa.</i>

Mary M. Hawley	<i>Media, Pa.</i>
Ellwood C. Jones	<i>Conshohocken, Pa.</i>
Maxwell Kennedy	<i>Philadelphia, Pa.</i>
Henry Child Kirk	<i>Baltimore, Md.</i>
Mary Kirk	<i>Lumber City, Pa.</i>
Harry M. Kreamer	<i>Phoenixville, Pa.</i>
Eleanor D. Mathews	<i>Plainfield, N. J.</i>
Egbert McDowell	<i>New York, N. Y.</i>
Morris B. Miller	<i>Wallingford, Pa.</i>
Wm. L. Miller	<i>Philadelphia, Pa.</i>
Redding M. Milligan	<i>Philadelphia, Pa.</i>
Caroline W. Moore	<i>Quaker Street, N. Y.</i>
John Russell Moore	<i>Curwensville, Pa.</i>
William A. Moore	<i>Curwensville, Pa.</i>
Arthur C. Needles	<i>Baltimore, Md.</i>
Gustav Negendank	<i>Wilmington, Del.</i>
J. Ivins Nicholas	<i>Andora, Pa.</i>
George G. Noble	<i>Philadelphia, Pa.</i>
Laura Norcross	<i>Mount Holly, N. J.</i>
Mary Paschall	<i>Philadelphia, Pa.</i>
Charles Porter	<i>Philadelphia, Pa.</i>
Granville P. G. Quinn	<i>Philadelphia, Pa.</i>
Watson Ritch	<i>Santa Fe, N. M.</i>
Walter E. Schofield	<i>Philadelphia, Pa.</i>
Alice Sharpless	<i>Goshenville, Pa.</i>
Lucien B. Squier	<i>Brooklyn, N. Y.</i>
Cecil A. Swezey	<i>Brooklyn, N. Y.</i>
Carl Louis Thudichum	<i>Philadelphia, Pa.</i>
George Watson	<i>Doylestown, Pa.</i>
I. Daniel Webster	<i>Wakefield, Pa.</i>
Martha K. Wildman	<i>Philadelphia, Pa.</i>
Arthur H. Williams	<i>Buckingham, Pa.</i>
Isabel L. Worthington	<i>Buckingham, Pa.</i>

CLASS B.

John L. Adams	<i>Westport, Conn.</i>
J. Cowgill Alston	<i>Middletown, Del.</i>
Walter L. Atwood,	<i>Philadelphia, Pa.</i>
James B. Bothwell	<i>Breckenridge, Mo.</i>
Rosamond L. Bowers	<i>Fallsington, Pa.</i>
William N. Bowne,	<i>Bordentown, N. J.</i>
Howard J. Brinton	<i>Gap, Pa.</i>
Hunter Brooke,	<i>Media, Pa.</i>
William E. Brosius	<i>Lewistown, Pa.</i>
Louis Deacon	<i>Philadelphia, Pa.</i>
Richard L. Ealo	<i>Havana, Cuba.</i>
Franklin S. Fister	<i>Philadelphia, Pa.</i>
William Sydnor Gilbreath	<i>Fort Buford, Da.</i>
Louisa Glading	<i>Philadelphia, Pa.</i>
Edwin B. Greenawalt	<i>Dauphin, Pa.</i>
Eugene Griffin	<i>Santa Fe, N. M.</i>
Alice W. Haines	<i>Rancocas, N. J.</i>
Henry L. H. Hallock	<i>Brooklyn, N. Y.</i>
William Heaton	<i>Philadelphia, Pa.</i>
Joseph L. Hecht	<i>Philadelphia, Pa.</i>
Ida R. Hightower	<i>Atlanta, Ga.</i>
Carlos F. Hill	<i>Eagle Pass, Texas.</i>
Florence Hull	<i>Salisbury Mills, N. Y.</i>
W. Everett Hunter	<i>West Chester, Pa.</i>
Ambrose S. Hurlbut	<i>Westport, Conn.</i>
Harry M. Johnson	<i>Philadelphia, Pa.</i>
Lillian Jones	<i>Conshohocken, Pa.</i>
Maria J. Kent	<i>Lincoln, Pa.</i>
George F. La Fetra	<i>Manasquan, N. J.</i>
Alice Leedom	<i>Torresdale, Pa.</i>
Minnie B. Long	<i>Tacony, Pa.</i>

Emma K. Martindale	<i>Camden, N. J.</i>
Guy P. McCandless	<i>Merchantville, N. J.</i>
Elizabeth H. Miller	<i>Oakdale, Pa.</i>
Pedro Nafarrate	<i>Mapimi, Mexico.</i>
• Amy H. Newbold	<i>Birmingham, N. J.</i>
John C. Norris	<i>Lynchs, Md.</i>
Ellis T. Oliver	<i>Philadelphia, Pa.</i>
Mary E. Parker	<i>Little Rock, Ark.</i>
Phebe J. Price	<i>El Moro, Col.</i>
John M. Pusey	<i>Council Bluffs, Iowa.</i>
Ardelle Russell	<i>Lumber City, Pa.</i>
Emma T. Satterthwait	<i>Columbus, N. J.</i>
Edwin F. Saxman	<i>Latrobe, Pa.</i>
Richard Sellers	<i>Swarthmore, Pa.</i>
Joseph T. Sill	<i>Germantown, Pa.</i>
William L. Sill	• <i>Germantown, Pa.</i>
Benjamin B. Squier	<i>New York, N. Y.</i>
Ella M. Stockton	<i>Wrightstown, N. J.</i>
William E. Sweet	<i>Colorado Springs, Col.</i>
Harry T. Thomas	<i>Baltimore, Md.</i>
Edward B. Tilghman	<i>Wilmington, Del.</i>
Anna Willets Titus	<i>Old Westbury, N. Y.</i>
Gertrude Beatrice Titus	<i>Brooklyn, N. Y.</i>
Louise Van Kannel	<i>Philadelphia, Pa.</i>
Rebecca M. Walker	<i>Philadelphia, Pa.</i>
Helen D. Wills	<i>Norristown, Pa.</i>
Ella Young	<i>Marlborough, N. Y.</i>

CLASS C.

Gabriel Aguilera	<i>Puerto Principe, Cuba.</i>
Helen Ballinger	<i>St. Joseph, Mo.</i>
Henry Banerfoot	<i>Philadelphia, Pa.</i>
Laura Beardsley	<i>Swarthmore, Pa.</i>

Edward H. Buckman	<i>Doylestown, Pa.</i>
Margaret G. Burns	<i>Marple, Pa.</i>
Sarah S. Burns	<i>Marple, Pa.</i>
Manuel Bustamante	<i>Saltillo, Mexico.</i>
James Calvert	<i>St. David's, Pa.</i>
Alice B. Comly	<i>Byberry, Pa.</i>
Charles Dilworth	<i>Billings, Montana.</i>
George Dilworth	<i>Billings, Montana.</i>
Rose Esterbrook	<i>Bridgehampton, N. Y.</i>
Anna M. Franklin	<i>Media, Pa.</i>
Olivia D. Greenawalt	<i>Dauphin, Pa.</i>
Percival Hicks,	<i>Media, Pa.</i>
Clifford S. Jacoby	<i>Philadelphia, Pa.</i>
Nathaniel K. Jones	<i>Washington, Arkansas</i>
Lillie T. Larrabee	<i>Baltimore, Md.</i>
Lillie M. Lewis	<i>Swarthmore, Pa.</i>
Lillie Ida Marseilles	<i>Philadelphia, Pa.</i>
Charles R. McCrea, Jr.	<i>Renova, Pa.</i>
Spencer Miller	<i>Oakdale, Pa.</i>
George Monroe	<i>Eagle Pass, Texas.</i>
James Noxon, Jr.	<i>Ingersoll, Ont., Can.</i>
Frederick Parrish	<i>Philadelphia, Pa.</i>
Anna Pancoast Rhoads	<i>Westtown, Pa.</i>
Mary E. Schlupp	<i>St. Joseph, Mo.</i>
Edwin Atley Schoen	<i>Philadelphia, Pa.</i>
William R. Trimble	<i>Philadelphia, Pa.</i>
George H. Wetmore, Jr.	<i>Adair, Iowa.</i>
F. Radcliffe Williams	<i>Poughkeepsie, N. Y.</i>
Charles R. Wilson	<i>Philadelphia, Pa.</i>
Charles E. Wright	<i>Maiden Creek, Pa.</i>
Susan L. Wright	<i>Maiden Creek, Pa.</i>

UNCLASSIFIED PUPILS.

Arturo Aguilar	.	.	.	.	<i>Leon, Nicaragua.</i>
Villeroy R. Bowyer	.	.	.	.	<i>Brooklyn, N. Y.</i>
Filadelfo Chamorro	.	.	.	.	<i>Granada, Nicaragua.</i>
Eliza Schimmel	.	.	.	.	<i>Philadelphia, Pa.</i>
Lilly Schimmel	.	.	.	.	<i>Philadephia, Pa.</i>

SUMMARY.

Col. Prep. Class	62
Class A	61
Class B	58
Class C	35
Unclassified	5
Total	<u>221</u>

SUMMARY BY STATES.

Pennsylvania	121
New York	22
New Jersey	21
Maryland	9
Delaware	7
New Mexico	4
Iowa	4
Ohio	3
Texas	3
Colorado	3
Arkansas	2
Connecticut	2
Georgia	2
Illinois	2
Mexico	2
Missouri	2
Montana	2
Nicaragua	2
Cuba	1
Dakota	1
District of Columbia	1
Indiana	1
Michigan	1
Ontario	1
Virginia	1
Wisconsin	1
Total in Prep. School,	<u>221</u>
" " the College, (p. 43),	83
Whole number of Students,	<u>304</u>

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COMMITTEE

ON

Trusts, Endowments and Scholarships.

JOSEPH WHARTON, P. O. BOX 2786, Philadelphia, Pa.

DANIEL UNDERHILL, Jéricho, L. I.

EDWARD H. OGDEN, 314 Vine Street, Philadelphia, Pa.

JOHN T. WILLETS, 303 Pearl Street, New York City, N. Y.

M. FISHER LONGSTRETH, Secretary and Treasurer,
Sharon Hill, Del. Co., Pa.

